

NOTES ON NEW AND NOTEWORTHY PLANTS. CXXXVII

Harold N. Moldenke

AEGIPHILA RACEMOSA var. *CORDATIFOLIA* Mold., var. nov.

Haec varietas a forma typica speciei laminis foliorum basaliter perspicue profundeque cordatis recedit.

This variety differs from the typical form of the species chiefly in having its leaf-blades basally conspicuously and deeply cordate. It is also noteworthy that corollas in wide-open condition persist in large numbers among maturing and mature fruits almost enclosed by very much incrassate and enlarged fruiting-calyxes.

The type of the variety was collected by Thomas B. Croat (no. 20738) at Casaeria on the Amazon River, Loreto, Peru, on September 25, 1972, and is deposited in the United States National Herbarium at Washington. The collector describes the plant as a shrub to 1.5 m. tall and the fruit as bright-orange in color.

ALOYSIA GENTRYI Mold., sp. nov.

Frutex fruticosus anguste rectus aromaticus 1--2 m. altus; ramis gracilibus griseis subglabris; ramis juvenalibus dense puberulis; internodiis valde abbreviatis; foliis decussato-oppositis numerosis; petiolis perabbreviatis ca. 1 mm. longis densissime pubescentibus; laminis foliorum anguste ellipticis 2--4 cm. longis 8--12 mm. latis apicaliter acutis vel subacutis marginaliter serrulatis basaliter acutis vel subcuneatis supra dense strigosis rugosis, subtus dense pubescentibus; inflorescentiis axillaribus abbreviatis plerumque 1--3-floris; bracteis ellipticis ubique densissime griseo-pubescentibus; fructibus valde longivillosis.

A bushy, narrowly erect, aromatic shrub, 1--2 m. tall; stems and branches slender, obscurely rounded-tetragonal or subterete, glabrescent, light-gray; youngest branchlets very slender and very densely puberulent; internodes very much abbreviated; leaves decussate-opposite, numerous, crowded, aromatic; petioles much abbreviated, about 1 mm. long, very densely grayish-pubescent; leaf-blades narrowly elliptic, chartaceous, 2--4 cm. long, 8--12 mm. wide, apically acute or subacute, marginally regularly serrulate (except basally), basally acute or subcuneate, densely appressed-strigose above with antrorse hairs, plainly rugose with impressed venation-reticulation, very densely short-pubescent beneath; inflorescence axillary, much abbreviated, usually 1--3-flowered in a short raceme; bracts elliptic, very densely grayish-pubescent on both surfaces; corolla very small, yellow; ovary and fruit conspicuously long-hispid with stiff wide-spreading hairs.

The type of this species was collected by Howard Scott Gentry (no. 14408) -- in whose honor it is named -- on granitic slopes and bajada with thorn forest and open grassland, at 100--800 feet altitude, at Los Cerritos, about 40 miles south of Navojoa, Sonora, Mexico, between October 1 and 3, 1954, and is deposited in my per-

sonal herbarium. The collector notes that the minute, inconspicuous, yellow flowers dry blackish and that the shrub is found only on or about postinsular cerritos. It "is, I believe, a postinsular endemic. It is known only from low granite hills, which appear to have been islands in the Gulf of California for a long time in the Tertiary Period."

PETREA MORII Mold., sp. nov.

Frutex scandens; ramis tetragonis usque ad fere 1 cm. diametro griseo lenticellato; foliis decussato-oppositis magnitudine per-variabilibus; laminis ellipticis subcoriaceis 10--35 cm. longis 5.5--16.5 cm. latis ubique scabris apicaliter breviter acuminatis marginaliter integris basaliter rotundatis supra glabris subtus subglabris, venis subtus parce puberulis; petiolis percrassis brevissimis in sicco corrugatis 3--5 mm. longis; inflorescentiis racemosis in statu maturo ca. 25 cm. longis 9 cm. latis ubique densiuscule puberulis pilis longioribus interspersis; pedicellis maturis elongatis arcte divaricatis 2--3/5 cm. longis ad apicem in capito ampliatis; calyce fructifero perincrassato ca. 1 cm. longo 8 mm. lato extus puberulento-piloso; sepalis fructiferis ellipticis ca. 2.5 cm. longis 1 cm. latis apicaliter subacutis ubique parce pilosulis.

Liana; branches tetragonal, to 1 cm. in diameter at the nodes, grayish, somewhat ridged, prominently lenticellate; branches similar but much more slender, densely short-puberulent throughout; leaves decussate-opposite, very variable in size, large and small pairs apparently alternating, very short-petiolate; petioles very heavy, at maturity apparently only 3--5 mm. long, irregularly corrugate in drying; leaf-blades broadly elliptic or elliptic, subcoriaceous, scabrous on both surfaces, 10--35 cm. long, 5.5--16.5 cm. wide. apically short-acuminate, marginally entire, basally broadly-rounded, glabrous above, subglabrous beneath except for the somewhat pilose-puberulent larger venation; inflorescence solitary, racemose, in fruit ca. 25 cm. long and 9 cm. wide, distantly many-fruited; peduncles, rachis, and petioles rather densely puberulent with scattered much longer hairs interspersed, the pedicels in fruit much longate, very slender, divaricate at right angles to the rachis, 2--3.5 cm. long, capitately ampliate at the apex; fruiting-calyx greatly incrassate and enlarged, ca. 1 cm. long and 8 mm. wide, externally puberulent and pilose, the wings elliptic, ca. 2.5 cm. long, 1 cm. wide, apically subacute, rather sparsely and obscurely pilosulous on both surfaces; flowers not seen.

The type of this species was collected by S. Mori and J. Kalunki (no. 5521) in a tropical wet forest along the El Llano to Carti road 24.5--25 km. from the Inter-American Highway near the continental divide, San Blas, Panama, on April 12, 1975, and is deposited in the United States National Herbarium at Washington. The collectors describe the fruiting-calyx as lavender in color.

SPHENODESME TRIFLORA var. *CLEMENSORUM* (Mold.) Mold., stat. nov.
Sphenodesme clemensorum Mold., *Phytologia* 4: 368. 1953.

VERBENA BIPINNATIFIDA var. *BREVISPICATA* (Umber) Mold., comb. nov.
Glandularia bipinnatifida var. *brevispicata* Umber, System. Bot. 4: 89. 1979.

VERBENA CHIRICAHENSIS (Umber) Mold., comb. nov.
Glandularia chiricahensis Umber, System. Bot. 4: 92--93. 1979.

VERBENA POLYANTHA (Umber) Mold., comb. nov.
Glandularia polyantha Umber, System. Bot. 4: 98. 1979.

VERBENA VERECUNDA (Umber) Mold., comb. nov.
Glandularia verecunda Umber, System. Bot. 4: 99--100. 1979.

PAEPALANTHUS ALMASENSIS Mold., sp. nov. Plate 1

Herba rosulata erecta 35 cm. alta; foliis caespitosis griseo-
viridibus gramineis 2--3.3 cm. longis 1.5--2 mm. latis plusminus-
ve patenti-pilosis apiculitate acutis; vaginis arcte adpressis
4--7 cm. longis densiuscule patenteque hispidulis, pilis tenuibus
albidis, in statu fructifero glabrescentibus nigrescentibus;
pedunculis gracilibus 25--35 cm. longis subteretibus in statu
juventute densissime albo-villosis, pilis arcte adpressis reflex-
is, in statu senectute glabriusculis; capitulis hemisphaericis
1.2--1.5 cm. latis; bracteis involucrentibus ellipticis atro-
brunneis vel nigrescentibus ca. 5 mm. longis ca. 2 mm. latis dor-
so glabrato margine irregulariter ciliatis apicaliter parce
pilosulis.

An erect rosulate herb to about 35 cm. tall; leaves all basal,
cespitose, gray-green, grass-like, 2--3.3 cm. long, 1.5--2 mm.
wide, apically acute, more or less deciduously spreading-pilose
throughout; sheath closely appressed to the peduncle, 4--7 cm.
long, the apical lobe lanceolate and about 6 mm. long, in the
young state rather densely spreading-hispidulous with long,
slender, whitish hairs, in the fruiting stage glabrescent and
nigrescent; peduncles slender, 25--35 cm. long, subterete, not
sulcate nor angled, in the young state very densely white-villous
with closely appressed and reflexed hairs, in the fruiting stage
glabrescent; heads hemispheric, 1.2--1.5 cm. wide in fruit; in-
volucral bracts narrow-elliptic, about 5 mm. long and 2 mm. wide,
the outermost smallest, dark-brown or nigrescent, dorsally glab-
rous except for the pilosulous apex, marginally inconspicuously
and irregularly ciliolate; for floral characters see accompany-
ing illustration.

The type of this species was collected by R. M. Harley, S. J.
Mayo, R. M. Storr, T. S. Santos, and R. S. Pinheiro (*Harley*
19768) in a region of sandstone, metamorphic, and quartzite rock
outcrops with associated marsh and damp flushes, on the lower
northeast slopes of the Pico das Almas, about 25 km. west-north-
west of the Vila de Rio de Contas, Serra das Almas, at approxi-
mately 41°57' W., 13°33' S., at 1500 m. altitude, Bahia, Brazil,
on March 20, 1977. The collectors note: Erect herb to ca. 35
cm. Leaves grey-green with spreading hairs. Basal sheath of
culm green, culm silvery-grey. Involucral bracts pale brown with

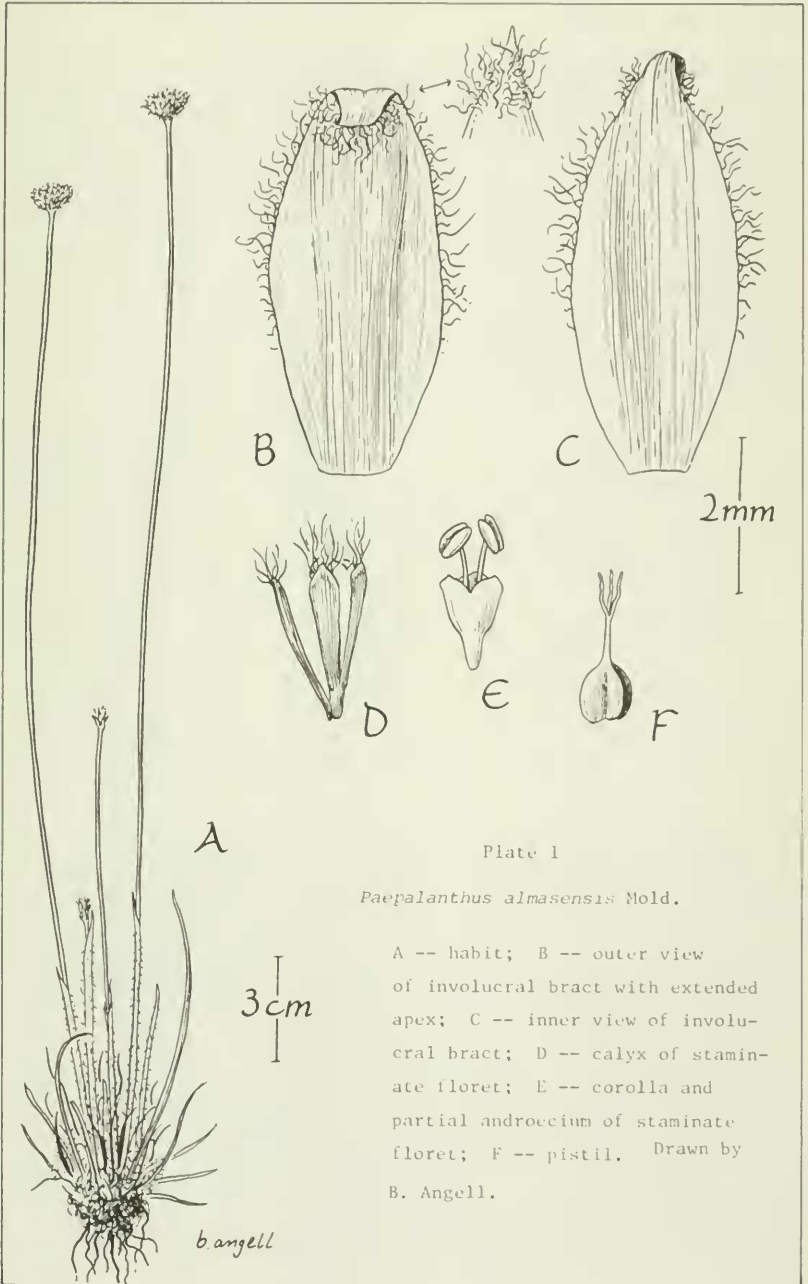


Plate 1

Paepalanthus almasensis Mold.

A -- habit; B -- outer view of involucre with extended apex; C -- inner view of involucre; D -- calyx of staminate floret; E -- corolla and partial androecium of staminate floret; F -- pistil. Drawn by B. Angell.

darker recurved tips."

PAEPALANTHUS CONTASENSIS Mold., sp. nov.

Plate 2

Herba rosulata; foliis caespitosis graminaceis 3--4 cm. longis 1.5--2 mm. latis subtus margineque dense albo-villosis glabrescentibus; vaginis gracilibus arcte adpressis 4--6.5 cm. longis dense albo-villosis, apice lanceolato-fissis; pedunculis gracillimis tricostatis 15--29 cm. longis glabris flavidis nitidis; capitulis hemisphaericis ca. 1 cm. latis; bracteis involucrentibus lanceolatis ca. 4 mm. longis 1.5 mm. latis extus irregulariter longipilosis atro-brunneis apicaliter acutis.

A rosulate herb; leaves basal, caespitose, grass-like, 3--4 cm. long, 1.5--2 mm. wide, slightly recurved and apically acute, densely white-villous beneath and along the margins when young, later glabrescent; sheaths closely appressed to the peduncle, slender, 4--6.5 cm. long, densely white-villous throughout, split at the apex and the lobe lanceolate, about 5 mm. long, tapering to the apex; peduncles very slender, 3-costate and 3-sulcate, 15--29 cm. long, yellowish, glabrous, shiny; heads hemispheric; involucre bracts lanceolate, very dark-brown, about 4 mm. long and 1.5 mm. wide, with a prominent midrib, apically acute, irregularly long-pilose on the back and margins; for staminate floral characters, see accompanying illustration; pistillate florets not seen.

The type of this species was collected by R. M. Harley, S. J. Mayo, R. M. Storr, T. S. Santos, and R. S. Pinheiro (*Harley 19900*) in a region of sandstone rock outcrops with a small area of disturbed marsh at their base and a nearby river with lush vegetation along its rocky margins, at an altitude of about 1200 m., about 1 km. south of the small town of Mato Grosso on the road to Vila do Rio de Contas, Serra do Rio de Contas, Bahia, Brazil, on March 24, 1977. The collectors note: "Rosette herb with grey-green leaves. Involucre bracts dark. Flowers off-white."

PAEPALANTHUS HARLEYI Mold., sp. nov.

Plate 3

Herba rosulata ca. 40 cm. alta; foliis linearibus 2--3 cm. longis glabris irregulariter ascendens; vaginis gracillimis arcte adpressis multistriatis tortis atro-brunneis vel nigris 4--4.5 cm. longis subglabris vel minutissime puberulis apicaliter fissis; pedunculis gracillimis subteretibus paulo tortis 30--39 cm. longis inconspicue adpresso-strigosis, pilis antrorsis; capitulis parvis obovatis ca. 8 mm. diametro; bracteis involucrentibus oblanceolatis vel ellipticis atro-brunneis vel nigris apicaliter acutis apicem versus dorso albido-pilosis.

A rosulate herb to about 40 cm. tall; leaves basal, caespitose, linear, 2--3 cm. long, glabrous, irregularly ascending or somewhat recurved; sheaths very slender, closely appressed to the peduncle, twisted, very dark-brown or blackish throughout, 4--4.5 cm. long, subglabrous or microscopically puberulous, split at the apex, the blade lanceolate, erect, apically acuminate; peduncles very slender, subterete, slightly twisted, 30--39 cm. long, inconspicuously appressed-strigose with antrorse whitish hairs; heads small, obovate, about 8 mm. in diameter; involucre bracts

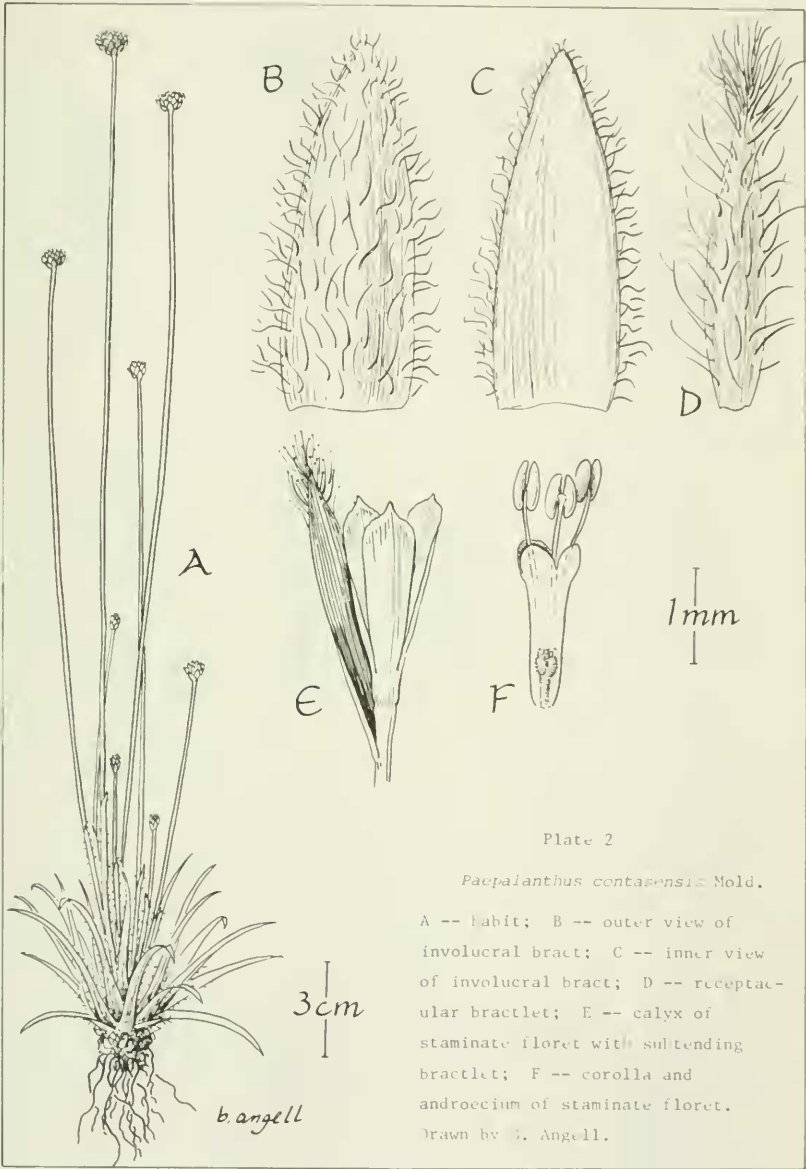


Plate 2

Paepalanthus centasiensis Mold.

A -- habit; B -- outer view of involucre; C -- inner view of involucre; D -- receptacular bractlet; E -- calyx of staminate floret with subtending bractlet; F -- corolla and androecium of staminate floret.
 Drawn by B. Angell.

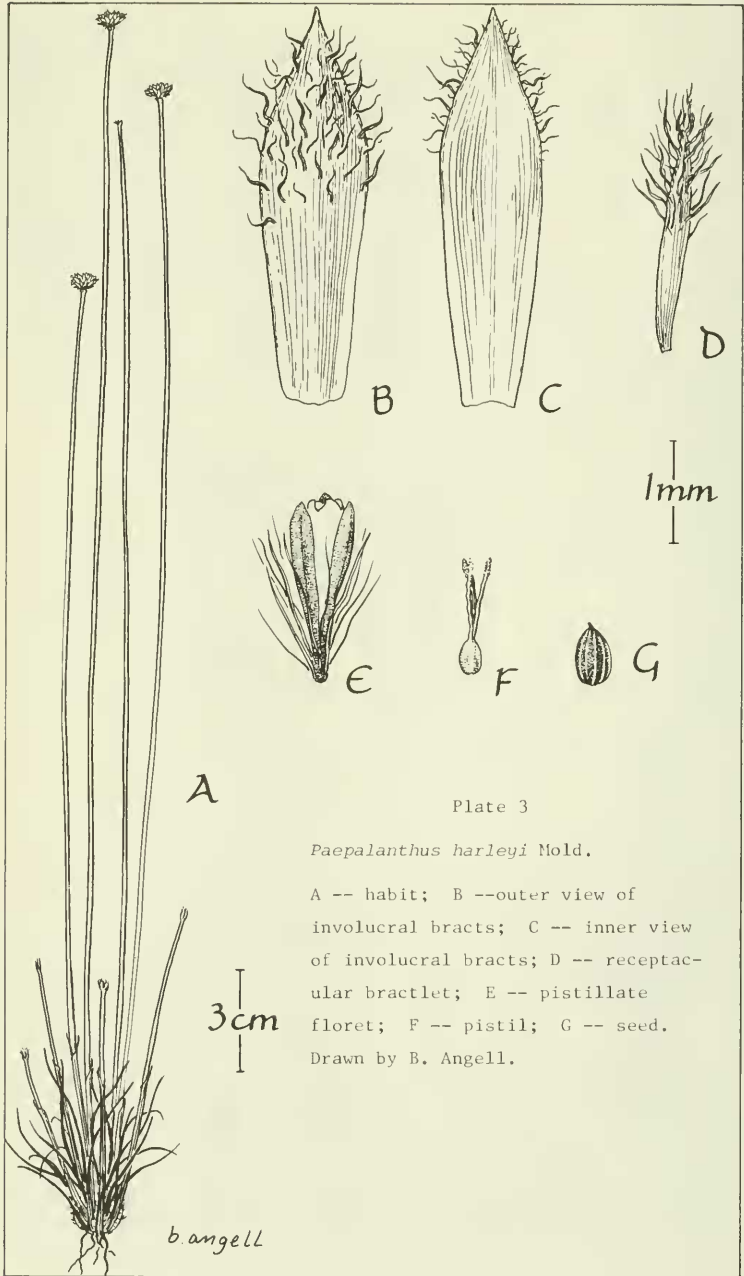


Plate 3

Paepalanthus harleyi Mold.

A -- habit; B -- outer view of involucre bracts; C -- inner view of involucre bracts; D -- receptacular bractlet; E -- pistillate floret; F -- pistil; G -- seed.
 Drawn by B. Angell.

oblanceolate or elliptic, dark-brown or blackish, apically acute, dorsally more or less white-pilose toward the apex, the lower ones much smaller and recurved; staminate florets not seen; for pistillate floret characters see accompanying illustration.

The type of this species was collected by R. M. Harley, S. J. Mayo, R. M. Storr, T. S. Santos, and R. S. Pinheiro (*no. 19728*) in a region of sandstone conglomerate, metamorphic, and quartzite rock outcrops with associated scrubby vegetation with damp flushes, grassland and marsh in some areas, at 1600--1850 m. altitude on the middle and upper slopes of the Pico das Almas, about 25 km. west-northwest of the Vila do Rio de Contas, approximately 41°57' W., 13°33' S., Serra das Almas, Bahia, Brazil, on March 19, 1977; this plant growing in the grassy marsh on the middle slopes of the Serra. The collectors note: "Silvery-grey rosette herb to ca. 35 cm. with dark sheaths and recurved leaves. Involucral bracts dark."

PAEPALANTHUS INOPINATUS Mold., sp. nov.

Plate 4

Herba rosulata; foliis caespitosis gramineis subcoriaceis 6--8 cm. longis 2--2.5 cm. latis rigidis pallide viridibus nitidis supra subglabris subtus puberulis marginaliter dense ciliatis apicaliter argutis; vaginis gracillimis arcte adpressis 6--7.5 cm. longis multistriatis ubique puberulis non tortis, apice fissis; pedunculis gracillimis flavidis 21--29 cm. longis subteretibus glabris non tortis; capitulis in statu alabastro parvis subrotundis ca. 4 mm. latis; bracteis involucrantibus ovatis brunneis apicaliter acutis extus puberulis.

A rosulate herb to about 30 cm. tall; leaves all basal, cespitose, rigid, subcoriaceous, grass-like, pale-green, 6--8 cm. long, 2--2.5 mm. wide, shiny, subglabrous above, puberulent beneath, marginally densely and rather irregularly ciliate, the hairs longest toward the leaf-base, apically very sharp-pointed; sheaths very slender, closely appressed to the peduncle, 6--7.5 cm. long, longitudinally many-striate, not twisted, puberulent throughout, split apically; peduncles very slender, yellowish, usually 7 or 8 per plant, 21--29 cm. long, subterete, glabrous, not twisted; heads in bud small, subrotund, about 4 mm. wide; involucral bracts ovate, brown, apically acute, about 3 mm. long and 2 mm. wide, dorsally puberulent, marginally ciliolate; flowers not seen.

The type of this species was collected by R. M. Harley, S. J. Mayo, R. M. Storr, T. S. Santos, and R. S. Pinheiro (*Harley no. 20130*) in a region of rocky riverside with rapids, riverine vegetation, cerrado with sandstone outcrops and some grassland areas subject to flooding (but dry at time of collection), at an altitude of approximately 980 m., between 2.5 and 5 km. south of Vila do Rio de Contas on the side road to the west of the road to Livramento, leading to the Rio Brumado, approximately 41°50' W., 13°36' S., Serra do Rio de Contas, Bahia, Brazil, on March 28, 1988. The collectors note: "Herb to 20 cm. with rosette of rigid pale green leaves. Involucral bracts grey-black. Flowers white."

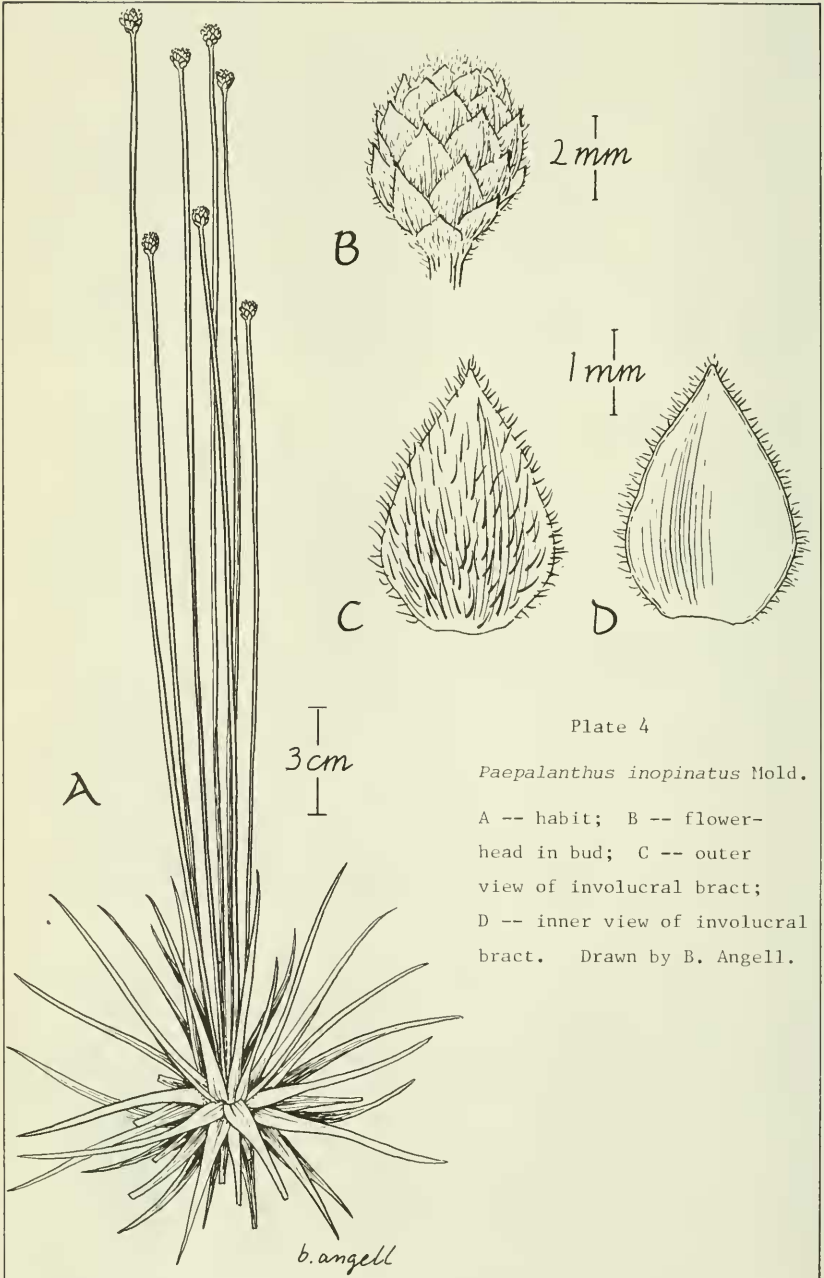


Plate 4

Paepalanthus inopinatus Mold.

A -- habit; B -- flower-head in bud; C -- outer view of involucre bract; D -- inner view of involucre bract. Drawn by B. Angell.

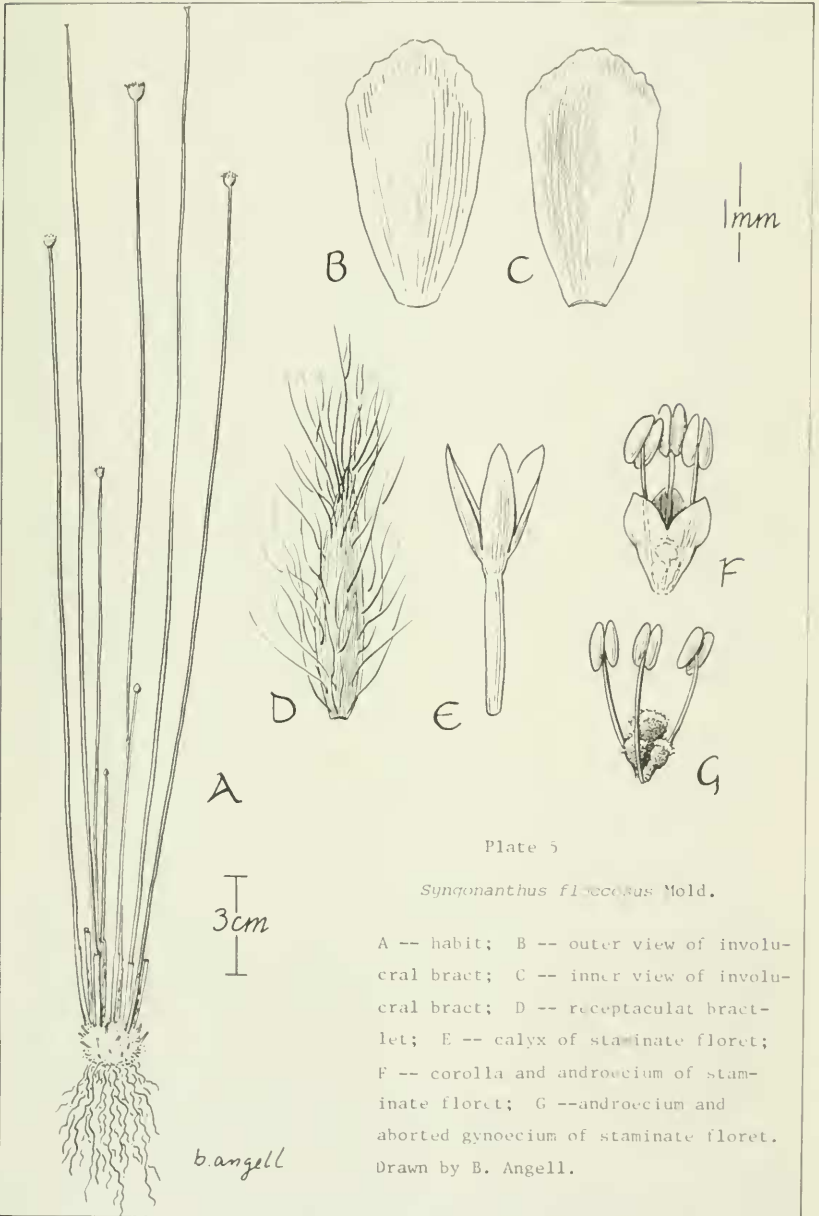


Plate 5

Syngonanthus filicoides Mold.

A -- habit; B -- outer view of involucre bract; C -- inner view of involucre bract; D -- receptaculate bractlet; E -- calyx of staminate floret; F -- corolla and androecium of staminate floret; G -- androecium and aborted gynoecium of staminate floret. Drawn by B. Angell.

SYNGONANTHUS FLOCCOSUS Mold.

Plate 5

Herba rosulata erecta ca. 30 cm. alta; foliis caespitosis linearibus usque ad 1 cm. longis in cumulo floccoso densissimo albedo omnino occultis; vaginis gracillimis, arcte adpressis 2 cm. longis densissime albo-strigosis; pedunculis gracillimis flavidis 13--29 cm. altis tricostatis paulo tortis glabris; capitulis ovato-rotundatis 7--9 mm. latis densissime albo-villosis.

A rosulate herb, erect, to about 30 cm. tall; leaves all basal, cespitose, linear, to about 1 mm. long, almost completely hidden by a dense white cottony or woolly cushion of hair; sheaths very slender, very closely appressed to the peduncle, 2 cm. long, very densely white-strigose with mostly reflexed hairs; peduncles very slender, yellowish, 13--29 cm. long, 3-costate and shallowly 3-sulcate, slightly twisted, mostly glabrous; heads ovate-rotund, small, 7--9 mm. wide, very densely white-villous; involucre bracts white, oblanceolate, about 3 mm. long and 2 mm. wide, apically rounded and erose, glabrous, the lowermost smaller; receptacular bractlets numerous, narrow-lanceolate, very densely long-villous with white hair; for staminate floret characters, see accompanying illustration; pistillate florets not seen.

The type of this species was collected by R. M. Harley, S. J. Mayo, R. M. Storr, T. S. Santos, and R. S. Pinheiro (*Harley no. 19042*) near São Inácio, at an altitude of about 500 m., in the Serra do Açurua, approximately 42°44' W., 11°07' S., Bahia, Brazil, on February 25, 1977. The collectors note: "Erect tufted herb to ca. 20--25 cm. with dense fibrous roots and swollen white woolly base. Stems and leaves erect grey. Heads and involucre bracts white."

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 ADDITIONAL NOTES ON THE GENUS *VITEX*. XVI

Harold N. Moldenke

VITEX Tourn.

Additional & emended bibliography: Roxb., Hort. Beng. 46 & 95. 1814; Roth, Nov. Pl. Sp., imp. 1, 316--317. 1821; Wall., Numer. List [47] & [48], nos. 1743--1760. 1829; Sweet, Hort. Brit., ed. 2, 416--418. 1830; Wall., Numer. List 86, nos. 1743/C--1755 (1831) and 215, nos. 6313 & 6314. 1832; Loud., Hort. Brit., ed. 2, 246 & 573. 1832; Piddington, Tab. View Gen. Char. Roxb. 106--107. 1836; G. Don in Sweet, Hort. Brit., ed. 3, 550--551 & 768. 1839; G. Don in Loud., Hort. Brit. Suppl. 2: 741. 1839; Jack, Calcut. Journ. Nat. Hist. 4: 40--42. 1843; G. Don in Loud., Hort. Brit. Suppl. [3]: 657 & 734. 1850; Beddome, Forest. Man. in Fl. Sylvat. S. India 2: clxxi. 1874; Kurz, Forest Fl. Brit. Burma 2: 252, 269--273, & 612. 1877; Fern.-Villar in Blanco, Fl. Filip., ed. 3, 4: Nov. App. 159--160. 1880; Vidal y Soler, Sin. Fam. Gen. Pl. Leñ.